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Claims

1. An apparatus for analysing the condition of a machine, comprising:

at least one input for receiving measurement data from a sensor for

10 surveying a measuring point of the machine;

data processing means for processing condition data dependent on said measurement data; said data processing means comprising means for performing a plurality of condition monitoring functions (F1, F2,Fn); and

15 a logger for registering use of at least two of said condition monitoring functions (F1, F2,Fn);

wherein

st said logger is adapted to register use of a first condition monitoring function/a first rate; and

20 said logger is adapted to register use a second condition monitoring function at a second rate.

2. The apparatus according to claim 1, wherein

said second rate is such that use registered at said second rate causes a higher cost per unit of usage than use registered at said first rate.

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3. The apparatus according to claim 1, wherein

said second rate is such that use registered at said second rate causes a lower cost per unit of usage than use registered at said first rate.

30 4. The apparatus according to any of the preceding claims, wherein:

said registered use is a parameter indicative of a number of executions of at least one of said condition monitoring functions (F1, F2,Fn).

5. The apparatus according to any of claims 1-3, wherein:

5 said registered use is a parameter indicative of an extent of time.

6. The apparatus according to any of claims 1 -5, wherein

 said plurality of condition monitoring functions (F1, F2,Fn) includes
two or three or more functions selected from the group consisting of: vibration
10 analysis, temperature analysis, shock pulse measuring, spectrum analysis of shock
pulse measurement data, Fast Fourier Transformation of vibration measurement data,
graphical presentation of condition data on a user interface, storage of condition data
in a writeable information carrier on said machine, storage of condition data in a
writeable information carrier in said apparatus, tachometering, imbalance detection,
15 misalignment detection.

7. The apparatus according to any of claims 1-6, wherein

 said plurality of condition monitoring functions (F1, F2,Fn) includes a
function for imbalance detection.

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8. The apparatus according to any of claims 1-7, wherein

 said plurality of condition monitoring functions (F1, F2,Fn) includes a
function for balancing.

25 9. The apparatus according to any of claims 1 - 5, wherein

 said plurality of condition monitoring functions (F1, F2,Fn) includes a
function for misalignment detection.

10. The apparatus according to any of claims 1-9, wherein

30 said plurality of condition monitoring functions (F1, F2,Fn) includes a
function for alignment.

11. The apparatus according to any of claims 1-10, further comprising

5 means for causing a user interface to indicate when use is registered at said first rate.

12. The apparatus according to any of claims 1-11, further comprising
means for causing a user interface to indicate when use is registered at
10 said second rate.

13. An apparatus for analysing the condition of a machine having a rotating shaft, comprising:

at least one input for receiving measurement data from a sensor for
15 surveying a measuring point of the machine; said measurement data being dependent on rotation of said shaft;

data processing means for processing condition data dependent on said measurement data; said data processing means comprising means for performing a plurality of condition monitoring functions (F1, F2,Fn);

20 a logger for registering use of at least one of said condition monitoring functions (F1, F2,Fn); and

means for reading a current value of said registered use;

means for comparing said current value with a reference value; wherein

25 said logger is adapted to register use at a first rate when said current value is above the reference value; and

said logger is adapted to register use at a second rate when said current value is below the reference value.

14. The apparatus according to claim 13, wherein

30 said second rate is such that use registered at said second rate causes a higher cost per unit of usage than use registered at said first rate.

15. The apparatus according to claim 13, wherein

5 said second rate is such that use registered at said second rate causes a lower cost per unit of usage than use registered at said first rate.

16. The apparatus according to any of the preceding claims, wherein:

10 said registered use is a parameter indicative of a number of executions of at least one of said condition monitoring functions (F1, F2,Fn).

17. The apparatus according to any of claims 13-16, wherein:

 said registered use is a parameter indicative of an extent of time.

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18. The apparatus according to any of claims 13 -17, wherein

 said plurality of condition monitoring functions (F1, F2,Fn) includes two or three or more functions selected from the group consisting of: vibration analysis, temperature analysis, shock pulse measuring, spectrum analysis of shock pulse measurement data, Fast Fourier Transformation of vibration measurement data,
20 graphical presentation of condition data on a user interface, storage of condition data in a writeable information carrier on said machine, storage of condition data in a writeable information carrier in said apparatus, tachometering, imbalance detection, misalignment detection.

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19. The apparatus according to any of claims 13-18, wherein

 said plurality of condition monitoring functions (F1, F2,Fn) includes a function for imbalance detection.

30 20. The apparatus according to claim 19, wherein

 said plurality of condition monitoring functions (F1, F2,Fn) includes a function for balancing.

21. The apparatus according to any of claims 13 -20, wherein

5 said plurality of condition monitoring functions (F1, F2,Fn) includes a function for misalignment detection.

22. The apparatus according to claim 21, wherein

 said plurality of condition monitoring functions (F1, F2,Fn) includes a
10 function for alignment.

23. The apparatus according to any of claims 13-22, further comprising

 means for causing a user interface to indicate when use is registered at
said first rate.

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24. The apparatus according to any of claims 13-23, further comprising

 means for causing a user interface to indicate when use is registered at
said second rate.

20 25. The apparatus according to any of claims 13-23, wherein

 said logger is adapted to register use of at least two of said condition
monitoring functions (F1, F2,Fn); and
wherein

 said logger is adapted to register use of a first condition monitoring
25 function a third rate; and

 said logger is adapted to register use a second condition monitoring
function at a fourth rate, said fourth rate deviating from said third rate.

26. The apparatus according to claim 25, wherein

30 said fourth rate is such that use registered at said fourth rate causes a higher
cost per unit of usage than use registered at said third rate.

27. The apparatus according to claim 25, wherein

5 said fourth rate is such that use registered at said fourth rate causes a lower cost per unit of usage than use registered at said third rate.